Page 1

110

QC1- Inspect dimensions to dimension sheet

FOLIO REV: / DWG REV:

0.00

110 QC

Memo

0.00

Quality Control

Work Order: Part No.	NCR:	Yes	/ No				WORK ORDER NON-C	COr	NFORI	MANCE / UPI	DATE	QA Closed:	Date:	
Part No.							DISPOSITION				AGAINST DE		• • •	
Part No. Scrap Use-as-is Work Order Update Use-as-is Work Order Update Use-as-is Use-as-is Work Order Update Use-as-is Use-as-as-is Use-as-as-as-as-as-as-as-as-as-as-as-as-as	Work Orde	er: .						,		Chid tubo		·] Engineering
NCR No.	Part I	No.					i —					Pro		- · · · · · · · · · · · · · · · · · · ·
Root Cause Date Step Qty or Non-conformance Chief Eng Description Date Verification QC Inspector Doc/Data Equip/Tooling Description Step Qty or Non-conformance Chief Eng Description Date Verification QC Inspector Doc/Data Equip/Tooling Date Verification QC Inspector Date Verification QC Inspector QC		•					1	1		~⊢	}		· · · · · · · · · · · · · · · · · · ·	
Date Step Qty	NCR i	۷o.			<u>-</u>		Work Order Update]		Large Fab	Composite		Supplier	
Doc/Data	Root			T		Descri	ption of work order update	l	nitial	Act	tion	Sign &		
Equip/Tooling Operator Operator Operator Operator Operator Operator Operator Operator Operator Other Operator Other Operator Oper	Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desci	ription	Date	Verification	QC Inspector
Operator Material Setup Other	Doc/Data						•							
Material Setup Other Oth	Equip/Tooling						•							
Setup Other Process Supplier Training Unapproved Landing Gear General Bending Centre Not Concentric to O/S Contre Not Concentric to O/S Broken/Damaged Cracks Broken/Damaged Crushed/Crimped Crushed/Crimped Cut Toa Short Heat Treat Inspection Strip in Tube Heat Treat Inspection Strip in Tube Inspection Strip in Tube Ripples in Bend Drill Holes Drill Holes Drawing Drawing Drawing Drawing Drawing	Operator						•							
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Torque Waves in Extrusion Drawing Out of Calibration		\vdash		•	iuuc	<u> </u>		-	-1	u	<u> </u>	I ower ross/	Juige	Tomes
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						" 	Finish							

Outside Dimensions

DQA:

Date:

Wave/Twist in Tube

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

July-23-12 10:14:36 AM

Quality Control

Quality Control

QC8- Inspect parts - second check

Memo

140

QC

Item ID: D206-667-247TRN Accept Setup Start *N900040100* **Revision ID:** Item Name: Crosstube Assembly, Mid Aft **Start Date:** Start Qty: 1.00 23/07/2012 **Cust Item ID:** Req'd Qty: 1.00 **Required Date:** 06/08/2012 **Customer:** Reference: Run Process Plan: ____ Date:___ Approvals: Tooling: Date: Stop QC: Date: SPC (Y/N): Date: Sequence ID/ .Operation Set Up/ Tool ID Tool # Plan Reject , Insp. Accept Reject Work Center ID Description Qty **Run Hours** Qty Code Numbe. Stamp 120 0.00 MORI SEIKI CNC LATHE LARGE *120* Mori Seiki 0.00 Memo Mori Seiki CNC Lathe Large 1-Turn second side as per Folio FB030 2-File down transition lines smooth. 3-Remove sand and plugs FOLIO REV: A DWG REV: 130 QC1- Inspect dimensions to dimension sheet 0.00 *130* QC 0.00 Memo

0.00

0.00



NCR: Yes / No								•			DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-O	100	VFORN	ANCE / UPD	ATE			
											QA Closed:	Date:	
Work Ord	er.					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
I WORK OF G	٠,٠	,				Rework	1		Skid-tube	Crosstube	1	Water Jet	Engineering
Part I	No.					Scrap			Machining	Small Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is		Therm	noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR	No.					Work Order Update]		Large Fab	Composite		Supplier	
Root					Descri	ption of work order update	ı	nitial	Actio	on	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Descri	ption	Date	Verification	QC Inspector
Doc/Data	Ш												
Equip/Tooling	Ш												
Operator													
Material													
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Process	$oxed{oxed}$												
Supplier													
Training			1										
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Landi		¬ —		General		7		_	7		1		
	\vdash	Bending				Bend	<u></u>	Grain	•	<u></u>	Ovalized		Pressure/Forced
	Centre Not Concentric to O/S		BOM/Route	L	Hardwa			Over/Under	<u> </u>	Temperature/Cure			
Cracks		Broken/Damaged		4 .	on Incomplete	<u> </u>	Part Incorre	<u> </u>	Weld				
l 		Burrs	\vdash	4	ions Incomplete/Ui	nclear	Part Lost/M	-	Wrong Stock Pulled				
	\vdash	Cuffs				Contamination		Mainte			Part Moved		
	Heat Treat			Countersink		Mislabe	led		Positioned \	Wrong	7		
	Inspection Strip in Tube			Cut Too Short	Misread				Power Loss,	'Surge	Other		

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

July-23-12 10:14:36 AM

Item ID: Revision ID:	D206-667-24	17TRN		Accept	*N900	1040	1100)* s	Setup Start	*N:	31*
Item Name:	Crosstube Ass	embly, Mid Aft				¢			Stop	*N.S	32*
Start Date:	23/07/2012	Start Qty: 1.00	*1*		Cust Item	ID:					
Required Date:	06/08/2012	Req'd Qty: 1.00	*1*		Customer						
Reference:		<u> </u>	·								•
Approvals:	Process Pla	n:	Date:	Tooling:	<u></u> E	Date:		F	Run Start	" N F	₹1*
	QC:		Date:	SPC (Y/N):)ate:			Stop	*NF	₹2*
"Sequence ID/ Work Center II	D	Operation Description	. ¥	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Çccept Ety	Reject Qty	Reject Number	Insp. Stamp
150				0.00							
150 HandFXtube		Memo		0.00			\wedge	Λ.			
Hand Finishing Cros	sstubes	1- PRESSU	RE WASH X-TUBE INS	SIDE AND OUT			1 1		1	2-7	- 4
		2- ACID ET	CH X-TUBE INSIDE A	ND OUT. USE RED SCOT	TCH BRITE						
*160	. •	QC5- Inspect part comp	leteness to step on W/O	0.00 DAS	Ustr7						
QC		Memo		0.00							
Quality Control											
170		•		0.00							
170		Packaging					•				
Packaging		Memo		0.00							
Packaging		Identify and Location:	stock in kanban rack	1	Mo 1	2-7	27	!		,,·	. -

	NCR: Yes / No										DQA:	Date:	: <u> </u>
NCR:	Yes ,	/ No				WORK ORDER NON-O	COI	NFORM	MANCE / UP	DATE			
											QA Closed:	Date:	
Work Orde	ari•					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
, work orde	- ''					Rework	1		Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	No.					Scrap	1 1		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
, aici	•0. —					Use-as-is			noforming	Finishing	4	re/Packaging	Other
NCR N	Vo.					Work Order Update	1		Large Fab	Composite	11.00,510	Supplier	1
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Root					Descri	ption of work order update	П	nitial	Act	tion	Sign &		
Cause		Date	Step	Qty	(or Non-conformance	Ch	ief Eng	Desci	ription	Date	Verification	QC Inspector
Doc/Data													
Equip/Tooling											1		
Operator							1						
Material													
Setup													
Other													
Process													
Supplier	Ш												
Training	Ш						1						
Unapproved							<u> </u>						
			<u> </u>	AUL	T CATE	GORY							
Landing Gear			General					7	_				
			Bend			Grain		Ovalized	<u>_</u>	Pressure/Forced			
	Centre Not Concentric to O/S			BOM/Route Hardware					Over/Under	tolerance	Temperature/Cure		

Inspection Incomplete

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Instructions Incomplete/Unclear

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Weld

Other

Wrong Stock Pulled

Broken/Damaged

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Burrs

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cracks

Cuffs

Heat Treat

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

July-23-12 10:14:36 AM Item ID: D206-667-247TRN Accept *N900040100* Setup Start **Revision ID:** Crosstube Assembly, Mid Aft Item Name: Start Qty: 1.00 **Start Date:** 23/07/2012 **Cust Item ID: Required Date:** 06/08/2012 **Req'd Qty:** 1.00 **Customer:** Reference: Run Process Plan: Date: _____ **Tooling:** Approvals: Date: Stop Date: SPC (Y/N): Date:

Sequence ID/ Work Center ID 180

Op ation De cription

QC21- Final Inspection - Work Order Release

Set Up/ **Run Hours** 0.00

Çol ID

Tool # Plan Code

Accept Qty Qty

Reject Reject

Number Stamp

Quality Control

120 QC

Memo

0.00

											DQA:	Dat	:e: _	
NCR:	Yes	/ No				WORK ORDER NON-O	01	NFORM	//ANCE / UPI	DATE				
		_				_		yaa			QA Closed:	Dat	e:	
Work Orde	er.					DISPOSITION				AGAINST DE	PARTMENT,	/PROCESS		
Part I	Cause Date Step Qty					Rework Skid-tube Crosstube Scrap Machining Small Fab Thermoforming Finishing Large Fab Composite Composite					Water Jet Prod. Eng. Coor. Rec/Store/Packaging Supplier			Engineering Quality Other
Root					Descri	ption of work order update		Initial Action		tion	Sign &			
Cause	e Date Step Qty			Qty		or Non-conformance	Ch	nief Eng	Desci	ription	Date	Verification	1	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved														
					AUI	LT CATE	GORY							
Landing Gear Bending Centre Not Concentric to O/S Cracks Crushed/Crimped. Cuffs Heat Treat Inspection Strip in Tube			General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		4	on Incomplete ions Incomplete/l nance led	Unclear .	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V	ct issing Vrong		Pressure/Forced Femperature/Cure Weld Wrong Stock Pulled Other			
1	Inspection Strip in Tube					Drill Holes	Officet				'			

Out of Calibration

Out of Sequence

Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Picklist Print

July-23-12 10:14:40 AM

Work Order ID: 88002

88002

LG

Parent Item:

D206-667-247TRN

D206-667-247TRN

Parent Item Name: Crosstube Assembly, Mid Aft

• Start Date: 23/07/2012

Required Date: 06/08/2012

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP rev:A 11.01.06 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item		Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6004-115		Manufactured	No			100	Each	75.0000	1	1			
D6004-11	15								**				
. *				L: on		Loc (Qty	Loc Code		٠,			

<u>":on</u>	Loc Qty	Loc Code	. V .	•
	75			
34685	1			
69798	34		1.	man. 12/07/24
75636	40			1701127

NCR:	Yes	1	No
INCh.	162	/	INU

DQA: _____ Date: ____

NCR: Y	es /	No				WORK ORDER NON-C	CONF	ORN	MANCE / UP	DATE	QA Closed:	Date	· *
. A / l O l .						DISPOSITION			······································	AGAINST DE	PARTMENT	PROCESS	
Work Orde	r:					Rework	7 		Skid-tube	Crosstube	1	Water Jet	Engineering
Part N	0			•		Scrap	┨		Machining	Small Fab	Pro	d. Eng. Coor.	Quality
1 41014	·					Use-as-is	┥┃┰		noforming	Finishing	4	re/Packaging	Other
NCR N	lo.					Work Order Update	1 1		Large Fab	Composite		Supplier	
							_						
Root					Descri	ption of work order update	Init	ial	Ac	tion	Sign &		
Cause	D	ate	Step	Qty		or Non-conformance	Chief	Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data		ŀ		ŀ									
quip/Tooling		ŀ											
Operator	_	ļ	İ										
Material	_	Ì											
etup	_												
Other	_												•
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Jnapproved	i					· · · · · · · · · · · · · · · · · · ·	<u> </u>					İ	
							AULT C	ATE	GORY				
Landir	ng Gear				_	General		:		<u> </u>	Ovalized	· F	Pressure/Forced
	_	ding			\-	Bend	\vdash	ain		<u> </u>	-	<u> </u>	_
-	—		t Concer	itric to C)/s -	BOM/Route	\vdash	ırdwa		<u> </u>	Over/Under	}	Temperature/Cure
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ł	Cuf		rimped.		-	Burrs	——		ions Incomplete/ nance	Unclear	Part Lost/M Part Moved	issing _	Wrong Stock Pulled
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}	_	t Treat		Tubo	-	Countersink Cut Too Short	_	islabe isread		-	Positioned V Power Loss/		Other
}	Inspection Strip in Tube		Drill Holes	$\boldsymbol{\vdash}$		ı		Jeomer ross/	onige [Jouren			
ŀ	Ripples in Bend Torque Waves in Extrusion			4	_	fset	Calibration				·		
}				xtrusion	' <u> </u> -	Drawing							
}	Turning Sequence			_	<u> </u>	Finish	\vdash		Sequence				
	Jwa	Wave/Twist in Tube				Folio	I IOU	ıtsıae	Dimensions				

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

DART AEROSPACE LTD	Work Order:	88002
Description: Crosstube Assembly, Mid Aft	Part Number:	D206-667-247TRN
Inspection Dwg: D206-667-247 Rev: A		Page 1 of 2

FIRST ARTICLE INSPECTION CHECKLIST

	spection Sheet wing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
	2.490	+0.005/-0.000	2493	<i>V.</i>		vern	CNC-08
	2.025	+0.005/-0.000	2.018			1	
	2.079	+0.005/-0.000	2.084	/			
	2.145	+0.005/-0.000	2.150				
	2.209	+0.005/-0.000	2-214				
	2.287	+0.005/-0.000	2.292	/ .			
E A	2.363	+0.005/-0.000	2:367	/		T.	
	0.200	+/-0.010	-200			vern	CV (-08
-	R0.063	+/-0.010	1063			R6	,
-	R2.00	+/-0.010	2.06			11	
_	R0.063	+/-0.010	.063	/		1	
	4.438	+/-0.010	41,446			vern	CNC-08
	0.400	0.005/ 0.000	2 (16.0				
-	2.490	+0.005/-0.000	2.492			vern	CNCOS
-	2.025	+0.005/-0.000	2.629	/		1	
-	2.079	+0.005/-0.000	2.084	/			
-	2.145	+0.005/-0.000	2.160	~			
	2.209	+0.005/-0.000	12-214				
	2.287	+0.005/-0.000	2.291				
ם ב	2.363	+0.005/-0.000	2.367			J	
SIDE	0.200	+/-0.010	(2a)			herr	0 1/C d
	R0.063	+/-0.010	-063				CNC-08
	R2.00	+/-0.010	2.00			RG	
	R0.063	+/-0.010	.063				
	4.438	+/-0.010	21.440	-		vern	CNC-08
F						•	
-	99.76	+/-0.020	00755			tape	LG-22

18 X

												DQA:_	Date		_
NCR: Y	es	/ No					WORK ORDER NON-C	ON	NFORM	MANCE / UPDATE		QA Closed:	Date		
Vork Orde	r:						DISPOSITION			AGA		PARTMENT/			7
Part N NCR N	_						Rework Scrap Use-as-is Work Order Update		Therm	Machining Sma	stube		Water Jet d. Eng. Coor. e/Packaging Supplier	Engineering Quality Other	
Root	use Date Step Qty			Desc		otion of work order update	i	Initial Action			Sign &			4	
Cause	\perp	Date	Step	Qty		0	r Non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspector	4
perator Material etup other rocess upplier raining napproved	tooling tooling start and the					T CATE	CORV								
Landin							General F	AUL	T CATE	GORY					\dashv
	Bending Centre Not Concentric to O/S Cracks Crushed/Crimped Cuffs Heat Treat Inspection Strip in Tube Ripples in Bend			Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes		Instruct Mainte Mislabe Misread Offset	on Incomplete ions Incomplete/Unclear nance iled		Ovalized Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other				
	Torque Waves in Extrusion				Drawing	1	Out of (Calibration							

Out of Sequence

Outside Dimensions

Turning Sequence

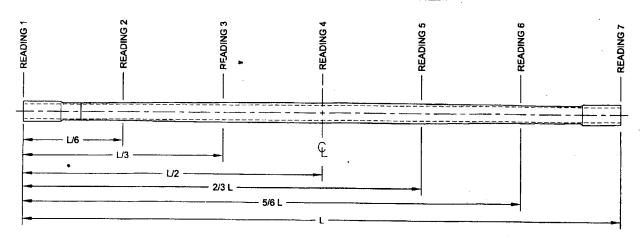
Wave/Twist in Tube

Finish

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

DART AEROSPACE LTD	Work Order:	88002
Description: Crosstube Assembly, Mid Aft	Part Number:	D206-667-247TRN
Inspection Dwg: D206-667-247 Rev: A		Page 2 of 2

WALL THICKNESS MEASUREMENT



	WALL	THICKNESS	MEASUREME	NT (IN)	Deviation	
Location	' w1'''	w2	w3	w4	Δw (max-min)	TOLERANCE
READING 1 L= 0"	.356	-354	.357	.353	.004	
READING 2	.159	.153	-161	.164	.611	·
READING 3	-251	. 248	.251	. 253	,005	
READING 4	,362	.354	. 356	.361	,608	0.045"
READING 5	,255	-247	-247	-255	-004	
READING 6	-166	-152	.150	164	.016	
READING 7°	.363	.348	. 346	361	-017	

Calibration Result

Actual Block Thickness:

Sitescan 250 Measured Thickness:

Measured by:	mon. L	Audited by:	Ju/	Preliminary Approval:	
Date:	12/07/25	Date:	12-7-26	Date:	

Rev	Date	Change	Revised by	Approved
Α	11.06.21	New Issue	KJ	
В	12.02.02	Dimension 4.438 was 4.500	KJ . Λ	
С	12.06.01	Wall thickness form added	KJ OH	M
				1 47

				DQA:	_Date:
VCR:	Yes / No	WORK ORDER NON-CONFORMANCE / UPDATE		.	
			04/	Clasad.	Date:

									QA CIOSEO.	Date.			
Work Orde	er:				DISPOSITION	·		AGAINST DE	PARTMENT	/PROCESS			
Part N	lo				Rework Scrap Use-as-is	crap Machining Small Fab			4	Water Jet d. Eng. Coor. e/Packaging	Engineering Quality Other		
NCR N	lo				Work Order Update	111611	Large Fab	Composite	i nee, stor	Supplier			
Root				Descri	ption of work order update	Initial	Act	tion	Sign &				
Cause	Date	Step	Qty	(or Non-conformance	Chief Eng	thief Eng Description			Verification	QC Inspector		
Doc/Data													
Equip/Tooling													
Operator													
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	Bending			<u> </u>	Bend	Grain			Ovalized		Pressure/Forced		
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	Cracks			<u> </u>	Broken/Damaged		ion Incomplete		Part Incorre	 	Weld		
	Crushed/	'Crimped		<u> </u>	Burrs	\blacksquare	tions Incomplete/	Unclear	Part Lost/M	issing	Wrong Stock Pulled		
	Cuffs			_	Contamination	\vdash	enance		Part Moved				
	Heat Treat			<u> </u>	Countersink	Mislab			Positioned V		ا		
	Inspection Strip in Tube			-	Cut Too Short	Misrea	d	L	Power Loss/	Surge	Other		
	Ripples in Bend			<u> </u>	Drill Holes	Offset							
	Torque Waves in Extrusion				Drawing		Calibration						
	Turning Sequence				Finish	\vdash	Sequence						
	Wave/Tw	vist in Tul	oe e	- 1	Folio	Outsid	e Dimensions						

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Item	Qty -247	Part Number	Description
1	Х	D206-667 ₆ 247	CROSSTUBE ASSEMBLY (206L MID AFT)
2	1	D6004-115	CROSSTUBE
3	2	D2873-043	NUT PLATE
4	2	D2873-045	NUT PLATE
5	2	D2892-1	SUPPORT
6	4	D3595-063-450	RUBBER CUSHION
7	4	MS21920-22	CLAMP
8	14	MS20601AD4W10	RIVET (OR NAS9302B-4-10)
9	A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299- 947-100, TYPE II, CLASS 2 ADHESIVE)

GENERAL NOTES:

С

1) MATERIAL: MANUFACTURED FROM D6004-115

FINISHED LENGTH = 99.76±0.020
2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2 PAINT OUTSIDE PER DART QSI 005 4.2

- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- UNITS: INCHES UNLESS OTHERWISE NOTED.
- BREAK SHARP EDGES: 0.005 TO 0.010 MAX.
- IDENTIFICATION: SCRIBE DART PART NUMBER "D206-667-247" AND BATCH NUMBER ON INSIDE OF CUFF PER DART QSI 044 6.4 (VIBRATING STYLUS).
- WEIGHT: 21.1 lbs (-607 = 17.7 lbs)
 PART IS SYMMETRIC ABOUT CENTERLINE.
- RUN CUTTER OFF PART WHERE INDICATED. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 10) BEND PROGRESSIVELY WITH A MINIMUM OF 10 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.

- TO BENDING IS 6% BASED ON O.D.

 11) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.

 12) INSTALL D2892-1 SUPPORT USING 0.03° TO 0.06" THICK LAYER OF MAGNOBOND 6396 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.

 13) INSTALL MS21920-22 CLAMPS WITH D3595-063-450 RUBBER CUSHINGS TO SECURE THE D2892-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMP MECHANISMS ARE LOCATED ON CROSSTUBE SUPPORTS.
- 14) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT
- LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS ARE SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

SHOP CUPY **RETURN TO ENGINEERING** UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER MUS

DEC ATTACHED

5CN # (1-615 11.07.28

UNDER REVIEW

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REV.			DESCRIPTION	BY	DATE						
DESIGN		9	DART AEROSI	PACE	LTD						
DRAWN	!	92	HAWKESBURY, ONTA	HAWKESBURY, ONTARIO, CANADA							
CHECK	CHECKED		DRAWING NO.		REV. A						
MFG. A	PPR.	C.	D206-667-247		SHEET 1 OF 4						
APPRO	VED	who	TITLE		SCALE						
DE APP	R.		CROSSTUBE ASSY (206)	L MID AF	T) NTS						
DATE	10.1	2.23	COPYRIGHT © 2010 BY DART AFROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE CORESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED ON COMPANIONED THAT OTHER PERSON VICTION. WINDERS PERSON PROMISED AND AREA AFROSPACE LTD.								

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Part N						Rework Scrap Use-as-is Work Order Update	Scrap Machining Small Fab Use-as-is Thermoforming Finishing				Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other	
Root					Descri	ption of work order update		nitial	Action	ı	Sign &		
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Cuffs						Contamination		Mainte	nance		Part Moved		
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	Inspection Strip in Tube					Cut Too Short		Misread	l		Power Loss/	Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

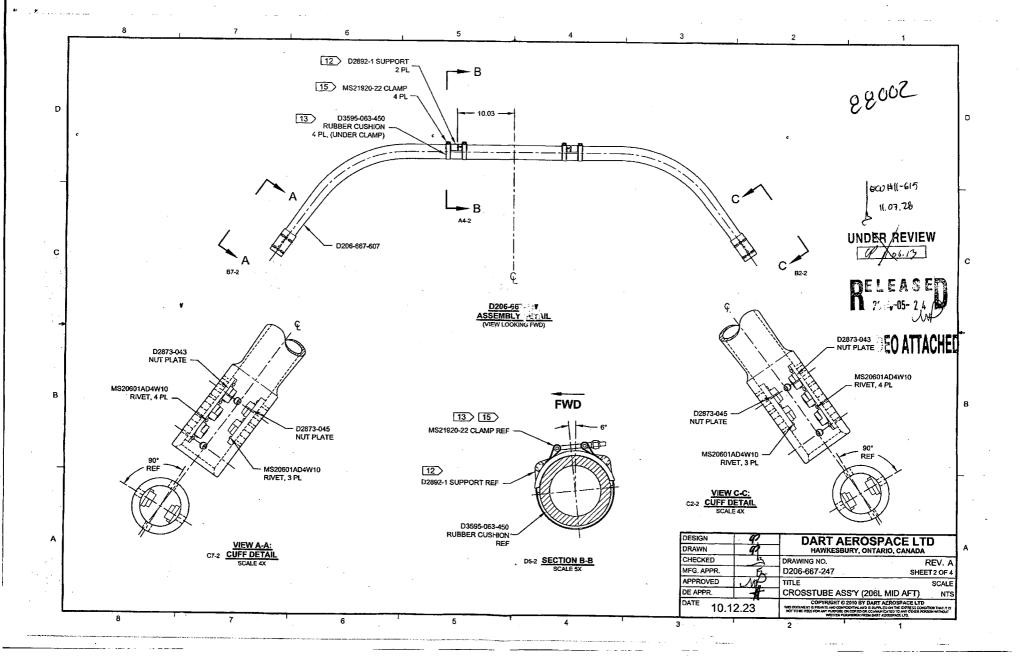
Torque Waves in Extrusion

Drill Holes

Drawing

Finish

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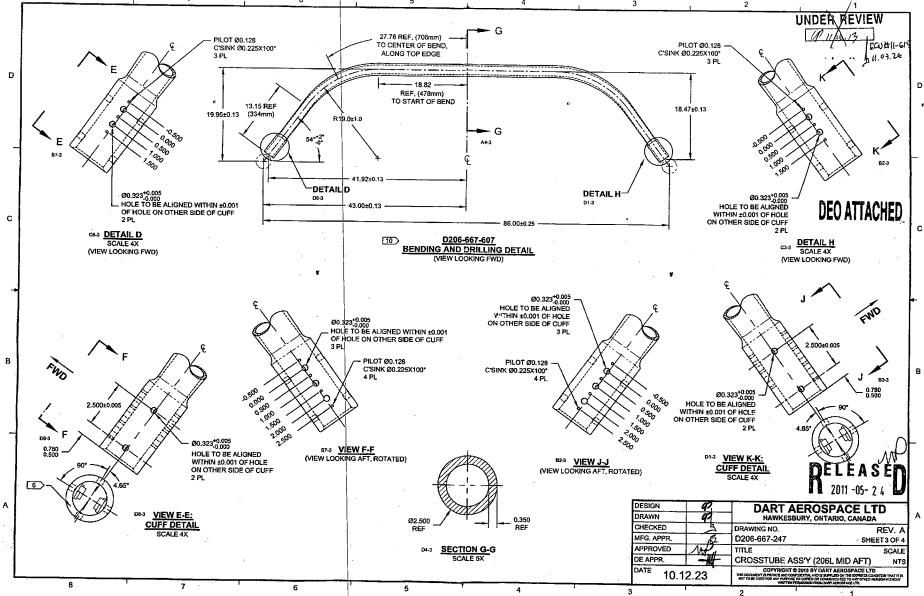
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FAULT CATEGORY

Landing (Gear	General		_		_		_
	Bending	Bend		Grain		Ovalized	Γ	Pressure/Forced
	Centre Not Concentric to O/S	BOM/Route		Hardware		Over/Under tolerance		Temperature/Cure
	Cracks	Broken/Damaged		Inspection incomplete		Part Incorrect		Weld
	Crushed/Crimped_	Burrs		Instructions Incomplete/Unclear		Part Lost/Missing		Wrong Stock Pulled
	Cuffs	Contamination		Maintenance		Part Moved		_
	Heat Treat	Countersink	Г	Mislabeled	Г	Positioned Wrong		_
	Inspection Strip in Tube	Cut Too Short		Misread		Power Loss/Surge		Other
	Ripples in Bend	Drill Holes		Offset		•		
	Torque Waves in Extrusion	Drawing		Out of Calibration				
	Turning Sequence	Finish		Out of Sequence				
	Wave/Twist in Tube	Folio	Г	Outside Dimensions				

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Unapproved

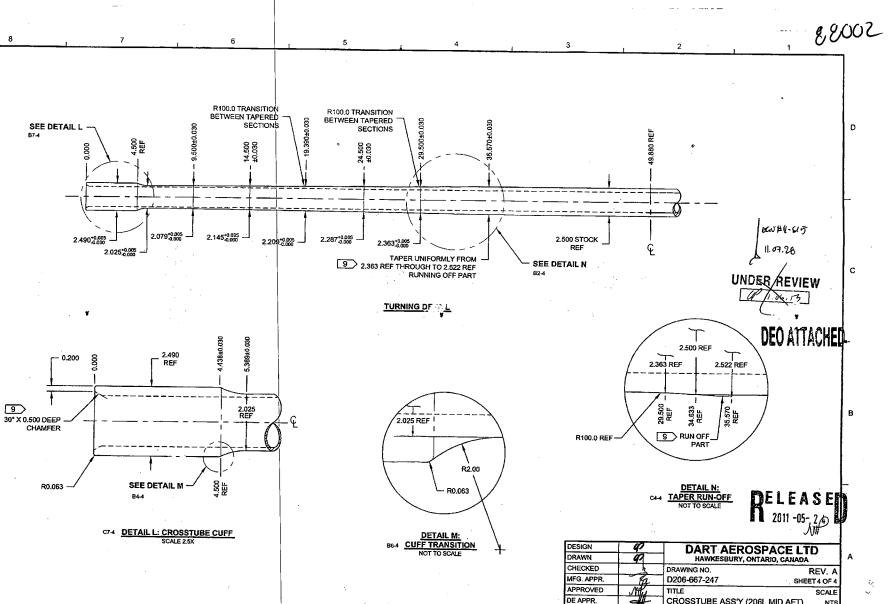


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		Cuffs			Ī		Contamination		Mainte			Part Moved			
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Ī		Inspection	Strip in	Tube			Cut Too Short	Γ	Misread	d		Power Loss/		\neg	Other
Ī		Ripples in	Bend		ļ		Drill Holes		Offset		<u> </u>				
	7	Torque W	aves in E	xtrusio	n i		Drawing		Out of (Calibration					
Ī	7	Turning Se	equence				Finish	Г	Out of	Sequence		- 1,, - 1 1 11			

Outside Dimensions

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Wave/Twist in Tube



8

DATE

10.12.23

CROSSTUBE ASS'Y (206L MID AFT)

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	L	Crushed/0	Crimped.		1	Burrs		Instruct	ions Incomplete/Uncl	lear	Part Lost/M	issing	V	Vrong Stock Pulled

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Part Moved

Positioned Wrong

Power Loss/Surge

Other

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish Folio

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Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cuffs

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

DRAWING NO.	TITLE	REV. A	DART AEROSPACE LTD	D.E.O. NO.	SHEET NO.	SCALE
D206-667-247	CROSSTUBE ASS'Y	(206L MID AFT)	ENGINEERING ORDER	D206-667-247-A-1	SHEET 1 OF 1	NTS
DRAWN 9	CHECKE	P_ASS	MFG. APPR.	APPROVED (MA)	DE APPR.	
DATE 11.07	.15 DATE	11.07.20	DATE 11-07-21	DATE 11/07/21	DATE 11.07-21	

PURPOSE:

REPLACE MAGNOBOND WITH PROSEAL

CHANGE:

IS:

Item	Qty -247	Part Number	Description					
9	A/R	PROSEAL 890 B-2	SEALANT, AMS-S-8802 CLASS B-2					

WAS:

9	A/R	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

NOTE 12 & 15, SHEET 1 IS AMENDED AS FOLLOWS:

IS:

- 12) TO INSTALL D2892-1 SUPPORT: ABRADE MATING SURFACE CF SUPPORT AND CROSSTUBE WITH 180-GRIT SANDPAPER AND REMOVE RESIDUE WITH MEK (OR EQUIVALENT). APPLY A 0.04" TO 0.07" THICK LAYER OF PROSEAL 890 CLASS B-2 (OR AMS-S-8802 CLASS B-2) SEALANT TO MATING SURFACE OF SUPPORT.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING. PRIOR TO PACKAGING, RE-CHECK TORQUE ON CLAMPS AFTER PROSEAL 890 SEALANT HAS CURED FOR 72 HOURS.

WAS:

- 12) INSTALL D2892-1 SUPPORT USING 0.03° TO 0.06° THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 15) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.



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NCR:	Yes	/ No				WORK ORDER NON-	CON	FORN	//ANCE / UF	PDATE	QA Closed:	Date:		
Work Order: Part No. NCR No.						DISPOSITION		AGAINST DEPARTMENT/PROCESS						
						Rework Scrap Use-as-is Work Order Update		Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Large Fab Composite			Prod. Eng. Coor Rec/Store/Packaging Supplier		Engineering Quality Other	
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	Centre Not Concentric to O/S Cracks				⁻ -	BOM/Route Broken/Damaged		Hardware			Part Incorre	· -	Weld	
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Torque Waves in Extrusion					1 1	10724000	anntation	libration Section 1997						

Out of Sequence

Outside Dimensions

DQA:

Date:

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Turning Sequence

Wave/Twist in Tube

Finish Folio